

## CROSS-REFERENCE TO RELATED APPLICATIONS

C<sup>1</sup>  
The present application is a continuation of U.S. Application No. 08/642,406, filed May 3, 1996, which issued as U.S. Patent No. 5,959,177 on September 28, 1999; which application is a continuation-in-part of U.S. Application No. 07/971,951, filed November 5, 1992, which issued as U.S. Patent No. 5,639,947 on June 17, 1997; which application is a continuation of U.S. Application No. 07/591,823, filed October 2, 1990, which issued as U.S. Patent No. 5,202,422 on April 13, 1993; which application is a continuation-in-part of U.S. Application No. 07/427,765, filed October 27, 1989 and now abandoned; the disclosures of which are incorporated by reference herein.

### In the Claims:

Please cancel claims 55 and 67 without prejudice.

Please amend the claims to read as follows:

- C<sup>2</sup>
21. (Twice Amended) A plant, comprising:
- (a) plant cells containing nucleotide sequences encoding one or more biologically functional immunoglobulin product not normally produced by the plant; and
  - (b) biologically functional immunoglobulin product encoded by said nucleotide sequences, wherein each nucleotide sequence encoding an immunoglobulin polypeptide encodes a leader sequence forming a secretion signal that is cleaved from said immunoglobulin polypeptide following proteolytic processing.

- C<sup>3</sup>
42. (Amended) The plant of claim 21, wherein the immunoglobulin product includes a J chain.

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E1 >  
C3  
cancel

43. (Amended) A plant, comprising:

- (a) plant cells containing nucleotide sequences encoding an immunoglobulin product containing at least a portion of an immunoglobulin heavy chain polypeptide, wherein said polypeptide further comprises a leader sequence forming a secretion signal; and
- (b) biologically functional immunoglobulin product encoded by said nucleotide sequences, wherein said leader sequence is cleaved from said heavy chain polypeptide following proteolytic processing.

C4

65. (Amended) A plant, comprising:

- (a) plant cells containing nucleotide sequences encoding an immunoglobulin product containing at least a portion of an immunoglobulin light chain polypeptide, wherein said polypeptide further comprises a leader sequence forming a secretion signal; and
- (b) biologically functional immunoglobulin product encoded by said nucleotide sequences, wherein said leader sequence is cleaved from said heavy chain polypeptide following proteolytic processing.

Please add the following new claims:

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--79. (NEW) The plant of any of claims 21, 43, or 65, wherein said immunoglobulin molecules are present at a level of at least 56 ng/mg of total protein in extracts of said plant.

80. (NEW) The plant of any of claims 21, 43, or 65, wherein said leader sequence on said each polypeptide is the same or a different leader sequence.

81. (NEW) The plant of any of claims 21, 43, or 65, wherein at least some of said immunoglobulin molecules are present within the cell wall of said plant cells.

Sub  
E2 >

82. (NEW) The plant of any of claims 21, 43, or 65, wherein said immunoglobulin molecules are trafficked through the Golgi of said plant cells.